

would seem to furnish the stimulus directly concerned in initiating such movements.

As to the question of food supply, it is hardly probable that a scarcity would have arisen so early in the season.

A consideration of all these various factors of wind direction, temperature change, barometric pressure, and food supply, in connection with the migration movements described above, leads quite clearly to the conclusion that the favoring wind may be considered as the most potent in bringing about the movements. When the breeding season is over, and a general physiological condition of readiness for flight is attained, then the favoring wind may furnish the necessary stimulus for a migration flight.

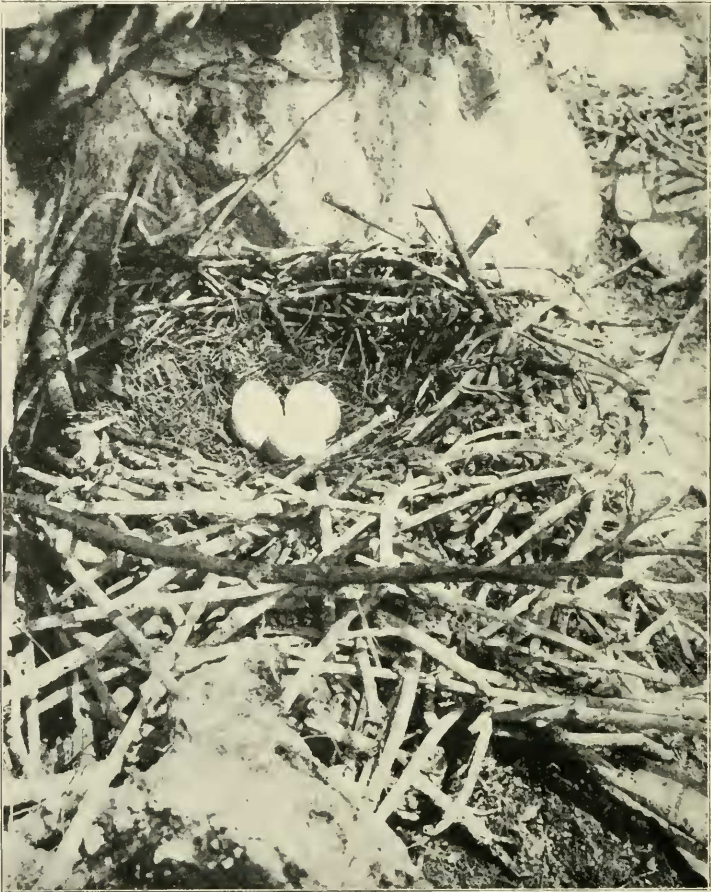
ON MAKING THE ACQUAINTANCE OF INDIVIDUAL BIRDS.

BY W. E. SAUNDERS.

Our study of birds is almost invariably based upon experiences with individuals which are grouped together and summarized into a total which we entitle "Our observations upon the species of so-and-so." This method is adopted because of the almost insuperable difficulties in the way of the adoption of any other course, and it has become so much the habit that we hardly ever stop to regret that we cannot differentiate between individuals and thereby determine individual preferences, habits, and vagaries. How much we lose by this, both in the sum total of knowledge gained and in our enjoyment of the individual acquaintance which we might make were the circumstances otherwise, it would be hard to say, but that there is a loss can not be doubted, and any occurrences which prove the possibility and emphasize the value of individual acquaintance will, I hope, be useful.

Years ago, a strong hint, and one of the first, was given to me, by a heronry in which some sets of eggs were unspotted, while others were more or less heavily spotted with deep

black. After a good deal of cogitation, the thought occurred that herons had the habit of fishing on the pound nets in Lake Erie, ten miles distant, where they got pitch and tar on their feet and returning home without wiping off on the door-mat, Fig. 7. Jones, 1907.



White-crowned Cormorant (*Phalacrocorax dilophus cincinnati*).

the pitch was rapidly transferred to the egg-shells. On a test it was found that these spots which obstinately resisted washing with water dissolved and vanished on the application of

ether, proving at once the correction of the theory. The occurrence of spotted sets and unspotted sets in the same tree showed that there was a great and constant difference in the habits of individual herons, but with such a shy and wary bird, nesting at a distance from home it was impossible to follow out the line of observation.

Quite different was the case in the fall of 1905 when two Robins with white collars appeared on a Sunday in October in the birds' bath outside my dining-room window. From migrants one does not expect to learn much, so that plans were at once laid for the capture of these two birds on the morrow, as shooting on the Sabbath in Canada is illegal as well as contrary to our peaceful and Sabbath-loving Canadian habits. The birds remained around my garden all that day in the company of about twenty other migrants, but that night came a north wind with rain and the migrants all vanished but one—gone south, of course, the experienced (?) observer at once concluded,—and my vision of a white collared pair, doubtless brother nestlings, as an addition to my cabinet, vanished, as I knew that the chances of meeting them on their return in spring, providing that they lived so long, were slim indeed.

Through that week the number of migrants (from the north, of course) gradually increased, and by Friday had again reached large numbers, and my amazement was great when a telephone message from home about 8:30 on Saturday morning said that "The White Collared Robin is in the bath." In ten minutes it was in the hand of a wondering ornithologist who was busily speculating on how much he did *not* know about migration habits. At noon, the companion bird appeared and was also secured, this proving almost beyond the possibility of a doubt that the visitors of today and last Sunday were identical. Plainly, therefore, when migrants leave us in fall and "go south" they will sometimes return north within a few days, or else their disappearance does not necessarily predicate a southern journey.

Sometimes one will get from nesting conditions a hint as to the domestic relations of the parents. For many years I took

one set of eggs each year from the Red-shouldered Hawks nesting in a certain woods fifteen miles from London. Until 1900 all these eggs were large; the last few sets averaging larger than those of the Red-tail, but when in 1900 this hen disappeared from the scene the bereaved husband took unto himself a spouse who laid the smallest eggs I ever saw for a Red-shoulder, smaller than the average Broad-wing.

Now if it is the case, as it may reasonably be, and as has been proved at times, that large eggs are from a large hen, and vice versa, then, remembering that the female Red-shoulder Hawk is larger anyway than the male, what a scene of domestic infelicity is here hinted at and what decisive and extreme steps the poor henpecked widower took to insure that his next venture should be productive of less tyranny! Evidently there is no divorce court among the Buteos, or he would have availed himself of it.

Members of my family are confident, but not entirely positive, of the identity of the Song Sparrow who visits the bath daily and has lived much in our garden for three years, and who has an invariable habit of scratching his head on both sides, though chiefly on the right, while bathing. Nothing, however, of special interest has been learned from this individual.

A certain Baltimore Oriole, also a resident of three years' standing, has been identified in the best way of all, by his voice. He has a striking call note of two tones, dropping an octave from F to F with the latter note staccato. Anxiously looked for in the early spring, for he is surely *Our Bird*, he is ever welcome; and there is no grudge even though he punctures and wastes a generous share of our plum crop, for he is *Ours*. While his undiscovered residence is almost certainly within one hundred yards of my garden I have heard his call in numerous nearby localities, showing his range to extend through a radius of about three or four blocks each north and east, but on the west other Orioles are nesting and he has not yet been heard there. To the south is a small park, about 200 x 400 yards in area, but, though one would imagine it to be a very tempting home, he has not yet been noticed in the

southern part of it, and he certainly spends most of his time in the gardens in our own block, where are many fruit trees and probably a greater variety of food than in the park, whose arboreal fauna consists mainly of the soft maples, *Acer dasycarpum*.

That anything of much scientific value has as yet been gained from such individual acquaintance is not claimed and that anything of great value will come is not certain, but what it means to the bird student and bird lover, to have his individual friends return to his ken year after year will be difficult to over-estimate, and the value he will set on such individual acquaintance will probably be far beyond that of any actual gain he may make from the acquaintance, just as we value our human friends, not for what they are, or may be to humanity, but for what their friendship means to us.

Is there a more enticing field opening before us than this one of individual bird acquaintances?

SUMMER BIRDS AT LAKE GENEVA, WIS.

BURTIS H. WILSON.

During the summer of 1907 it was my great privilege to spend the two weeks from July 6th to 20th at the Y. M. C. A. encampment at Lake Geneva, Wisconsin. This beautiful lake lies near the southern boundary of Wisconsin and about 35 miles west of Lake Michigan. It is an irregular shaped body of water, about 7 miles long from east to west, with a shoreline of about 28 miles. At its widest point it is about $1\frac{1}{2}$ miles wide. Bordered by high bluffs, the tops of which are rolling, cultivated farm lands, the lake lies much below the level of the surrounding country. There are three small towns along the lake shore, while a great part of the bluffs and shore of the lake are occupied by summer cottages, camps, and improved park lands belonging to country clubs. In some places the bluffs are overgrown with heavy underbrush, but along most of the shore the underbrush has been cleared away,